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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,636	12/30/2003	Ahmad Fakheri	72611-003	6883

29493 7590 10/19/2005  
HUSCH & EPPENBERGER, LLC  
190 CARONDELET PLAZA  
SUITE 600  
ST. LOUIS, MO 63105-3441

EXAMINER

LEO, LEONARD R

ART UNIT PAPER NUMBER

3753

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/748,636

Applicant(s)

FAKHERI, AHMAD

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 4, 9, 10, 13-19, 21, 24, 25 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 11, 12, 20, 22, 23, 26 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of the species of Figure 1 in the reply filed on July 29, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 4, 9-10, 13-19, 21, 24-25 and 27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Regarding claims 4, 10, 13-14, 21 and 25, the claims read on the nonelected species of Figure 3. Regarding claims 9, 24 and 27, the claims read on the nonelected species of Figure 3, as further shown in Figures 5- 6. Regarding claims 15-19, the claims read on the nonelected species of Figure 9.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "blower" in claims 6-7, 23 and 28 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

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be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 8, 11-12, 20, 22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson et al. Regarding claim 2, Figure 2 of Nelson et al discloses the tube 11 has a circular cross section. Regarding claims 3 and 5, Figure 1 of Nelson et al discloses fin segments 21, 22 spaced apart at regular intervals. Regarding claim 8, Figure 3 of Nelson et al discloses a rectangular loop. Regarding claims 11-12, 22 and 26, Figure 2 of Nelson et al discloses fin segments 21, 22 have a plurality of holes corresponding to the number of loops.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

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in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al in view of Ares.

Nelson et al discloses all the claimed limitations except a blower within the core.

Ares discloses a heat exchanger comprising a core 16a, 16b having regularly spaced apart fin segments 20a, 20b and blower 44 disposed within the core for the purpose of increasing airflow to improve heat exchange.

Since Nelson et al and Ares are both from the same field of endeavor and/or analogous art, the purpose disclosed by Ares would have been recognized in the pertinent art of Nelson et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Nelson et al a blower disposed within the core for the purpose of increasing airflow to improve heat exchange as recognized by Ares.

Claims 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al in view of Dailey.

The device of Nelson et al lacks a blower around the core.

Dailey discloses a heat exchanger comprising a core 62 and blower 50 disposed around the core for the purpose of increasing airflow to improve heat exchange.

Since Nelson et al and Dailey are both from the same field of endeavor and/or analogous art, the purpose disclosed by Dailey would have been recognized in the pertinent art of Nelson et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Nelson et al a blower disposed around the core for the purpose of increasing airflow to improve heat exchange as recognized by Dailey.

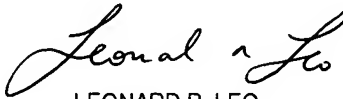
*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LEONARD R. LEO  
PRIMARY EXAMINER  
ART UNIT 3753

October 16, 2005